

## **Adapting to climate change - Farms & Forests**

### **What is the issue?**

Investment and policy reform are needed on priority for Indian agriculture and Indian forests to cope with climate change.

### **How does climate change impact farming in India?**

- India is uniquely vulnerable to rising temperatures, with the country ranked 14th on the Global Climate Risk Index 2019.
- The country has over 120 million hectares suffering from some form of degradation.
- According to one estimate, marginal farmers may face a 24-58% decline in household income and 12-33% rise in household poverty through exacerbated droughts.
- With rain-fed agriculture practised in over 67% of our total crop area, weather variability can lead to heavy costs, especially for coarse grains (which are mostly grown in rain-fed areas).
- Also, it is predicted that there would be 70% decline in summer rains by 2050, which would devastate Indian agriculture.

### **What should be done to mitigate these impacts?**

- Conservation farming and dryland agriculture should be promoted by providing each village with timely rainfall forecasts.
- Along with that, weather-based forewarnings regarding crop pests and epidemics in various seasons is necessary.
- A mandate to change planting dates, particularly for wheat, should be considered, which could reduce climate change induced damage by 60-75%.
- Agricultural research programmes need to refocus on dryland research, with adoption of drought-tolerant breeds that could reduce production risks by up to 50%.
- Also, Insurance coverage should be expanded to cover all crops, while interest rates need to be subsidised, through government support and an expanded Rural Insurance Development Fund.

### **What are the concerns in the protection of forests?**

- India is estimated to have lost over 26 million hectares of forest land and 20

million hectares of grasslands/shrublands between 1880 and 2013.

- Insufficient coordination between the Central Pollution Control Board (CPCB) and the State Pollution Control Boards (SPCBs) has led to institutional apathy towards alarming air pollution levels in the metros.
- State-level forest departments routinely lack suitable record keeping, particularly on assessment and realisation of dues on compensatory afforestation activities and catchment area treatment.
- Also, because of limited budgets for anti-poaching, India have little meaningful protection against wildlife crime and forest protection.

### **How should it be overcome?**

- State-of-the-art training to the Indian Forest Service personnel must be provided, and specialisation should be encouraged in wildlife, tourism and protection for new recruits.
- Wildlife heritage towns, which are adjacent to national parks and sanctuaries, need to be converted into green smart cities with upgraded waste recycling processes.
- For this, expansion of joint research and development partnerships should be made, by pairing India's emerging smart cities with green cities in the West.
- The Van Dhan Yojana can be scaled up towards building a green mission to save our non-protected forests (which are outside the existing national parks and sanctuaries).
- Also, wildlife tourism must also be encouraged, particularly through public-private partnerships, to help increase conserved areas while making a difference to backward districts.
- Thus, these prudent investments and policy reform can help make India resilient to climate change.

**Source: The Hindu**